

TOOL USE INSTRUCTION

RIVIAN	TOOL NUMBER	TSN00457-100-A
	TITLE	AC flush setup TUI for Robinair AC1234-4
	REV - DATE	REV A - 04/25/2025

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DOCUMENT FUNCTION:

This document provides guidance on how to setup the Robinair AC1234-4 AC machine (TSN00457-100-A) when used to do an AC flush on the vehicle.

NOTE: Document is for Rivian Service Center reference ONLY





WARNING

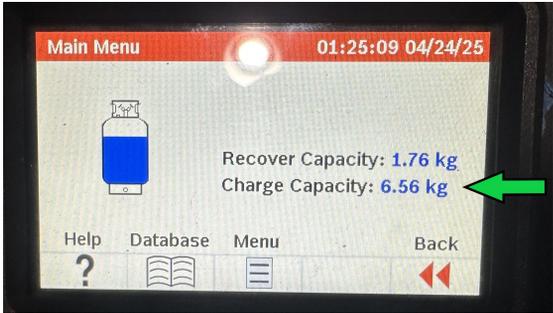
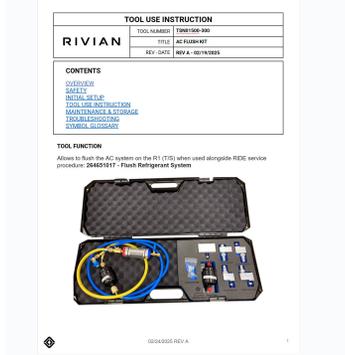
Do not perform procedure if tool is damaged or missing parts. Consult the Rivian Service Tool Catalog for replacement components.

Failure to follow guidelines outlined in this document could result in injury and/or property damage.

SAFETY GUIDELINES

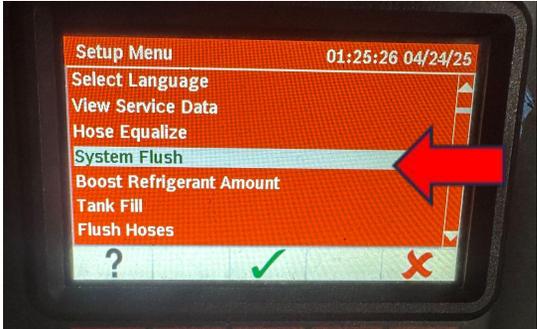
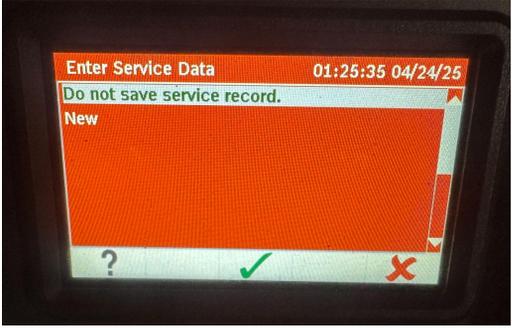
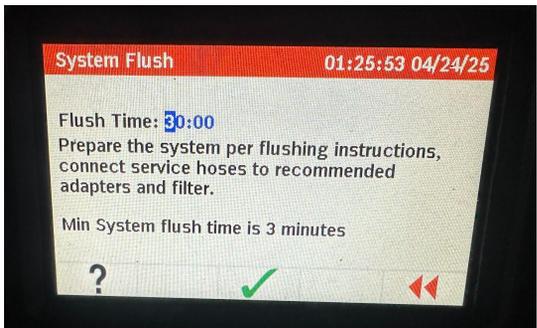
<p>1</p>	<ul style="list-style-type: none"> ● eye protection ● closed toe shoes ● gloves ● ear protection ● ASTM class 0 electrical-protection gloves 	
<p>2</p>	<p>Risk of:</p> <ul style="list-style-type: none"> ● damage to vehicle or property ● voiding warranty <p>If process isn't done correctly on vehicle</p>	
<p>3</p>	<p>Risk of major injury such as:</p> <ul style="list-style-type: none"> ● chemical or poison ● skin irritation if refrigerant oil gets on skin ● system under pressure 	



<p>1</p>	<p>Check the AC machine filter life prior to using the machine for a flush.</p> <p>Some AC machines will not allow the flush to be performed if the filter life is not adequate</p>	
<p>2</p>	<p>Ensure the fill tank of the AC machine has the minimum amount needed to perform a flush on the vehicle.</p> <p>Robinair AC-1234-4 requires at least 6 kg on the Charge tank to perform a flush</p>	
<p>3</p>	<p>Only use the approved adapters from the TSN01500-300 AC flush kit when performing a flush on a Rivian vehicle.</p>	
<p>4</p>	<p>Follow the instructions Tool Use Instructions for TSN01500-300 AC flush Kit for setup and procedure.</p> <p><u>TSN01500-300 AC Flush kit</u></p>	

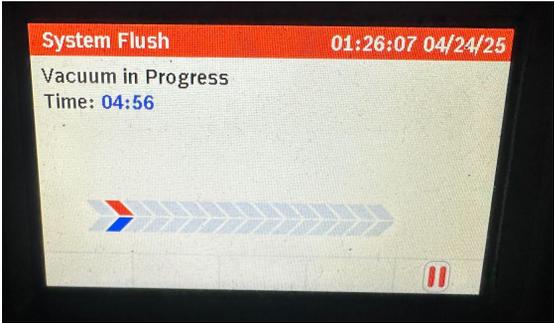
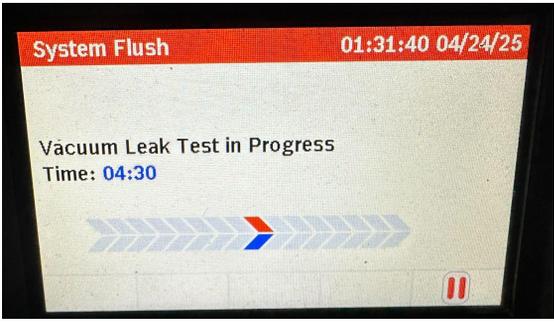
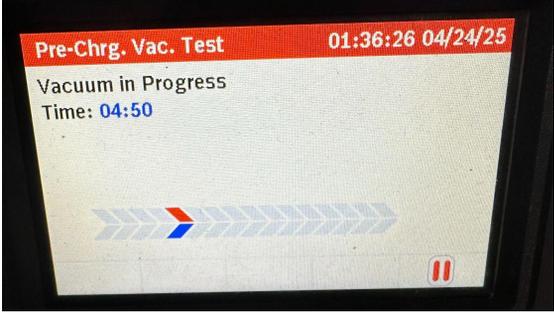
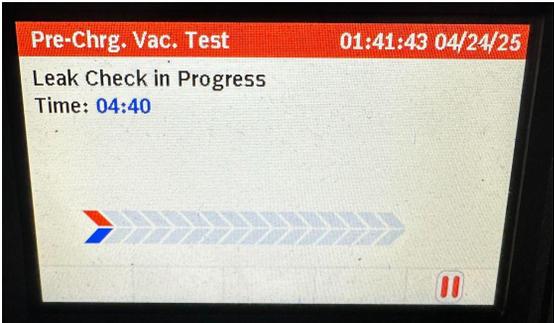


TOOL USE INSTRUCTION

<p>1</p>	<p><i>Note: Images used are for reference, be sure to follow the machine's text directions.</i></p> <p>Select MENU in the home screen</p>	
<p>2</p>	<p>Select System Flush</p>	
<p>3</p>	<p>Select the needed service data recording for the flush</p>	
<p>4</p>	<p>Set the system flush time at 30 min.</p> <p>There are NO cycles and just one 30 min flush cycle per Phase with the Robinair AC1234-4 unit.</p>	

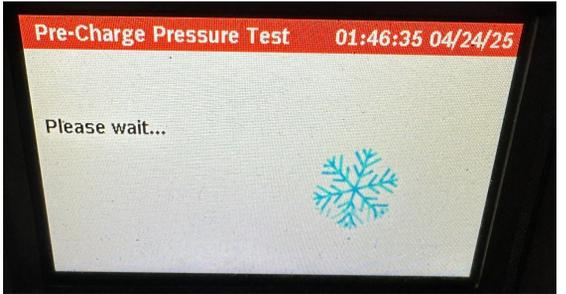
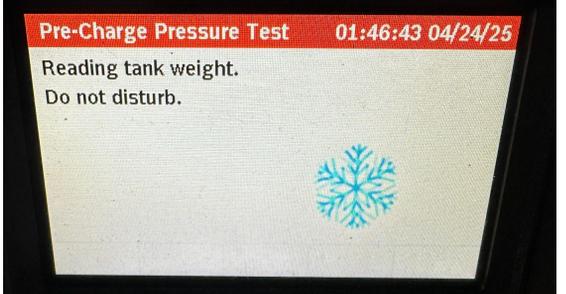
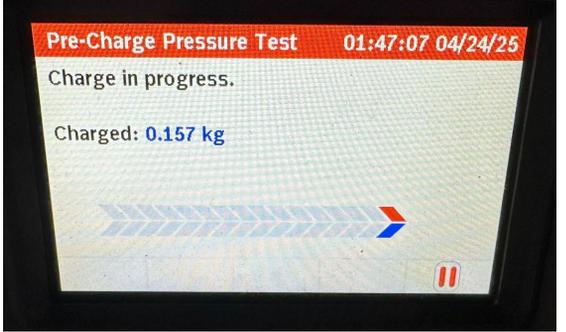
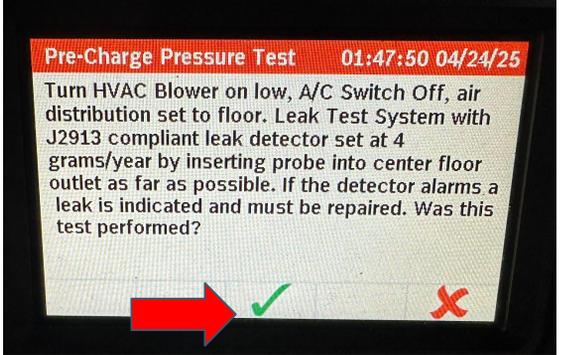


TOOL USE INSTRUCTION

5	The process will start with a vacuum for the system flush	 <p>The screenshot shows a digital display with a red header bar containing the text "System Flush" and a timestamp "01:26:07 04/24/25". Below the header, the text "Vacuum in Progress" is displayed, followed by "Time: 04:56" in blue. A progress bar with blue and red segments is visible, and a red pause icon is in the bottom right corner.</p>
6	Once the vacuum is complete, it will perform a vacuum leak test for the system flush	 <p>The screenshot shows a digital display with a red header bar containing the text "System Flush" and a timestamp "01:31:40 04/24/25". Below the header, the text "Vacuum Leak Test in Progress" is displayed, followed by "Time: 04:30" in blue. A progress bar with blue and red segments is visible, and a red pause icon is in the bottom right corner.</p>
7	Next: A vacuum test is performed for the pre-charge vac test	 <p>The screenshot shows a digital display with a red header bar containing the text "Pre-Chrg. Vac. Test" and a timestamp "01:36:26 04/24/25". Below the header, the text "Vacuum in Progress" is displayed, followed by "Time: 04:50" in blue. A progress bar with blue and red segments is visible, and a red pause icon is in the bottom right corner.</p>
8	After the pre-charge vacuum test, a leak test is performed for the pre-charge test	 <p>The screenshot shows a digital display with a red header bar containing the text "Pre-Chrg. Vac. Test" and a timestamp "01:41:43 04/24/25". Below the header, the text "Leak Check in Progress" is displayed, followed by "Time: 04:40" in blue. A progress bar with blue and red segments is visible, and a red pause icon is in the bottom right corner.</p>

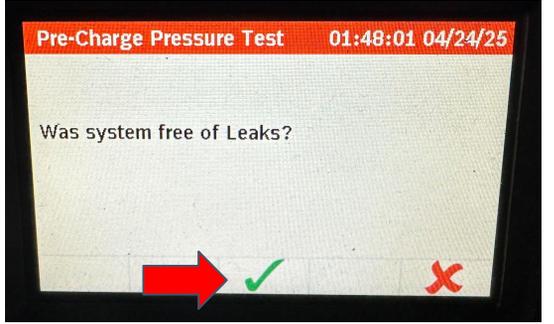
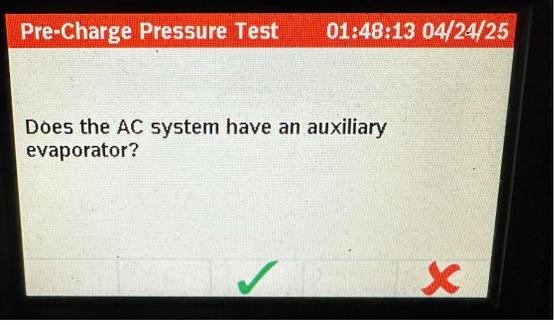
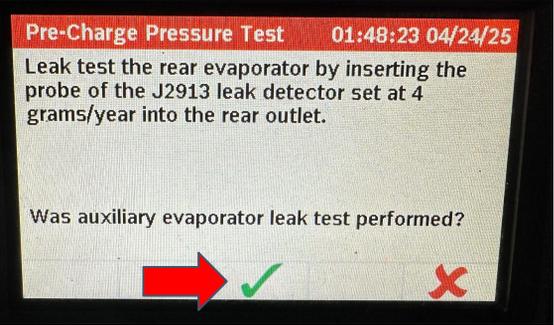
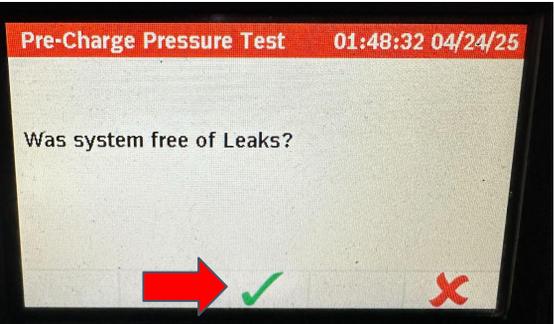


TOOL USE INSTRUCTION

9	Once the pre-charge leak test is completed, a pre-charge Pressure test is performed	
10	Once the pressure test is completed and passes, it will read the tank weight and prep to charge the system	
11	The system will then be charged with Freon to start the flushing process	
12	Once the system is pre-charged, it will prompt you to do vehicle system leak check. NOTE: IT IS NOT RECOMMENDED to turn ON the HVAC system to perform a leak check. Hit the check mark and proceed	

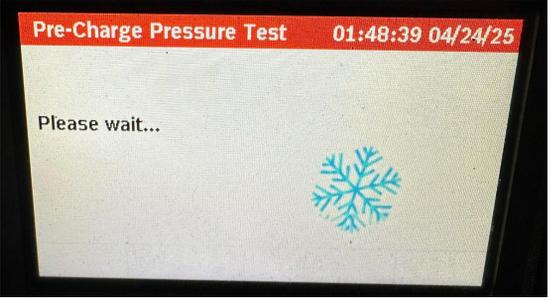
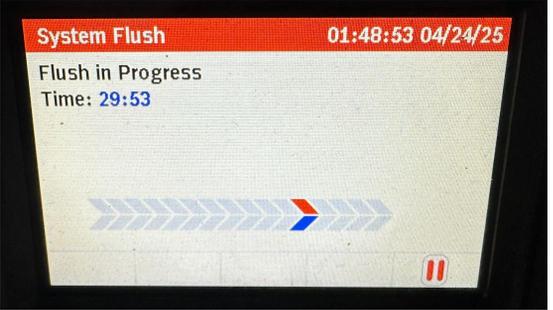
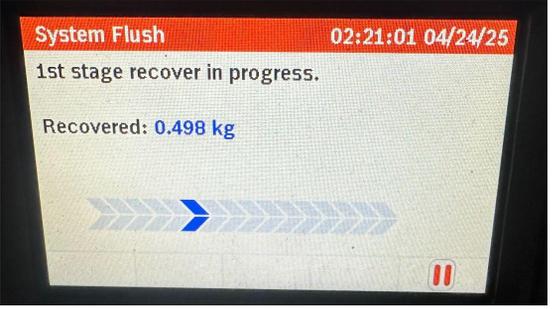
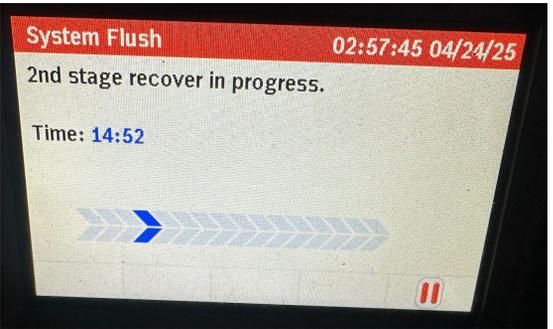


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<p>13</p>	<p>Next confirm if the system was free of leaks. Select check mark to confirm and continue</p>	
<p>14</p>	<p>Next step will confirm if the AC system has an Auxiliary evaporator R1T: NO (X mark) R1S: YES (✓ mark)</p>	
<p>15</p>	<p>You will be prompted to leak test the rear evaporator. This is NOT REQUIRED and can be skipped by selecting the ✓ mark. NOTE: Rear Evaporator will be replaced on R1S after all 4 phases have been flushed on the AC system,</p>	
<p>16</p>	<p>Confirm that there are no leaks and select the ✓ to continue to the next step</p>	

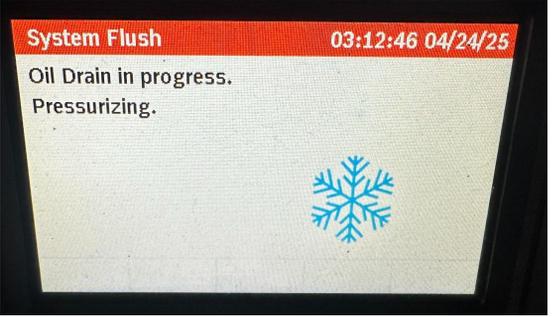
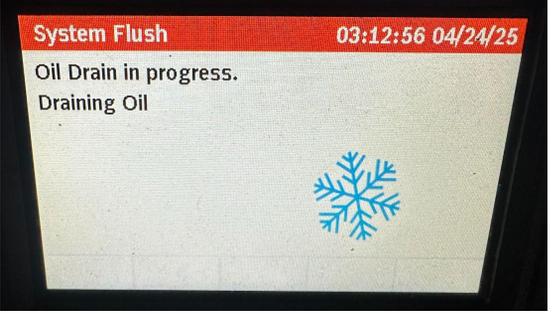


TOOL USE INSTRUCTION

17	<p>There will be a short wait while the AC machine preps to start the flushing process</p>	
18	<p>The System flush will begin and run for the set 30 min</p>	
19	<p>Once the 30 min flush is completed, the 1st stage of recovery will be automatically initiated.</p> <p>This process may take some time based on how much refrigerant was used during the flushing process.</p>	
20	<p>Once the 1st stage recovery is completed, it will automatically move into the 2nd stage recovery.</p> <p>This step will take about 15 min.</p>	



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<p>21</p>	<p>Once both recovery stages have been completed, the AC machine will pressurize to start the Oil drain.</p>	
<p>22</p>	<p>Once the pressurizing step has been completed, it will start the Oil Drain process.</p>	
<p>23</p>	<p>When the System flush is complete you will get a report at the end with the flush time as well as amount of oil drained during the flush process.</p>	
<p>24</p>	<p>Repeat Steps 1-23 for each of the Phases required in RiDE:</p> <p>R1T: 3 Phases R1S: 4 Phases Underbody line flush: 1 flush procedure with the AC machine (No RiDE procedure)</p>	<p>There is NO NEED to disconnect the AC machine High side and Low side couplers from the adapters when performing flushes between phases.</p>



TOOL USE INSTRUCTION

<p>25</p>	<p><u>IMPORTANT</u> After the AC flush is performed on the vehicle, perform 264650024 - Refrigerant Evacuate and Recharge to clear any residual refrigerant/pressure left in the vehicle before disconnecting AC machine and removing adaptors</p>	<p>Procedure 264650024 - Refrigerant Evacuate and Recharge Thermal Management / Refrigerant System</p> <hr/>
<p>26</p>	<p>Only disconnect from the vehicle when all necessary flushing phases have been completed and an EVAC/RECOVER has been performed on the vehicle.</p>	



BASIC MAINTENANCE GUIDE

TASK	FREQUENCY
<p>Check AC machine internal filter for service life capacity. This is an operation that is present in the Main Menu of the machine.</p>	<p>Before Each Use</p>
<p>Check new tank capacity to ensure capacity requirement is sufficient to perform the flush (6.0kg min for the Robinair AC1234-4)</p>	<p>Before Each Use</p>
<p>Inspect couplers prior to usage of the AC machine</p>	<p>Before Each Use</p>
<p>Put AC machine back to storage location and route hoses on machine back on holders</p>	<p>After Each Use</p>



SERVICE & REPLACEMENT COMPONENTS

FOR OTHER ITEMS NOT SHOWN, CONTACT RIVIAN SERVICE TOOL ENGINEERING

ITEM	DESCRIPTION	SUPPLIER + PART NUMBER
1	Spin On Recycling Filter Drier	 <p>Rivian Tool ID: TSN00457-214-A Manufacturer number: 34724</p>
2	Identifier Filter	 <p>Rivian Tool ID: TSN00457-214-A Manufacturer Number: 16913</p>



TROUBLESHOOTING

PROBLEM	SOLUTION
Flush process won't start on the AC machine	<ul style="list-style-type: none">● Check the internal filter service life and replace if necessary● New tank capacity is not adequate. Fill the tank if necessary
Little or no fluid is flowing through the flush kit sight glass	<ul style="list-style-type: none">● Check refrigerant amount imputed into machine● Valve may be closed on the flush kit assembly● Screw down coupler valves are not open
Pressure is present (gauges) prior to disconnecting the AC machine couplers from the adapters.	<ul style="list-style-type: none">● Be sure to recover/evacuate the system prior to any disconnecting of the adapters
Pressure is in the system after the Phase flush is complete and the AC machine wont allow you to move to next step.	<ul style="list-style-type: none">● Go back to Main Menu screen and perform a Recover/Evac on the system
Contaminated refrigerant when performing a recover/evacuation after a flush.	<ul style="list-style-type: none">● inspect ac machine gas analyzer● possible small leak at one of the seals or connection points.● Inspect/replace Identifier filter





DANGER

Risk of electrocution or electric shock



WARNING

Risk of minor injury



DANGER

Risk of major injury such as

- fire
- chemical or poison
- crushing / maiming
- death



CAUTION

Risk of

- damage to vehicle or property
- data disruption
- voiding warranty



CAUTION

Risk of Pinch Point

- keep hands and fingers clear of all moving parts.



PPE REQUIRED

REVISION LOG

REV	DATE	CHANGE DESCRIPTION
A	04/28/2025	Initial release

